
Chapter 2

SUMMARY HISTORY AND SIGNIFICANCE

Figure 2.1: The eastern section of Bradlee basin, 1891 (Historic New England).



Historical Overview

In 1865, Massachusetts legislature authorized the [Cochituate] Water Board's plan to construct the Chestnut Hill Reservoir, which was needed to increase Boston's water storage capacity. The City purchased over two hundred acres of land by 1867, based on the recommendations of the City Engineer. The site consisted of marsh and meadows and was well-situated between Lake Cochituate and the city center, with a natural basin that afforded positive gravitational flow. In 1866, work began in earnest and included a 2000-foot embankment and a vast brick sewer to drain the marsh. Since the Cochituate Aqueduct was already located under the site, the Water Board recommended two irregularly shaped basins with a dam between them that ran over the Aqueduct. The smaller [Lawrence] basin measured 37.5 acres and was named for the first president of the Water Board, Amos A. Lawrence. The larger [Bradlee] basin measured 87.5 acres and named for the then current president of the Water Board, Nathaniel J. Bradlee.

Between 1868 and 1870, the City constructed three buildings in the Renaissance Revival style. They included an Influent Gatehouse (razed by Boston College around 1951), the Intermediate Gatehouse, and the Effluent Gatehouse (#1). A pleasure drive or carriageway was also proposed around the Reservoir and received immediate, enthusiastic public support.¹ During construction of the basins, the Water Board also took steps to turn the site

into the first large-scale rural park in Boston, well in advance of later decisions by the City related to a municipal park system.² The landscape included a footpath along the water's edge and an extensive carriageway that wound around both basins and followed the natural "rise and descent of the ground and except when it passes through groves or around rocks, lies upon the margins of the reservoir or keeps the water in sight thus... affording beautiful for the whole distance."³ At the highest point of the new driveway, the City also built a triumphal granite Entrance Arch to commemorate the Water Works, located approximately ten feet west of the current intersection of Commonwealth Avenue and Chestnut Hill Avenue.⁴ In 1876, the City planted Centennial elms around the Reservoir along Beacon Street and the Chestnut Hill Driveway. In 1886, the City began work on the High Service Pumping Station on land southeast of Beacon Street. Designed by Arthur Vinal, City Architect, the building was constructed of Milford granite in the Richardsonian Romanesque style and complete by 1887.

The 1875 Park Act, approved by Boston voters, created a municipal commission to consider a park system for the City. The commission informally consulted with landscape architect Frederick Law Olmsted, designer of New York's Central Park. Shortly after relocating to Brookline, Massachusetts, the Olmsted firm completed a

plan for Commonwealth Avenue in 1884, connecting Brighton Avenue with the Chestnut Hill Reservoir. Only the first section was actually constructed, and consisted of a formal, wide boulevard with three parallel drives. Olmsted's 1887 plan for the Boston Park System shows "The Chestnut Hill Loop" connecting the Reservoir to other park areas in Boston. With the construction of Commonwealth Avenue complete, and a redesign of Beacon Street as it passed through Brookline underway, Olmsted saw this loop of roads leading to the pleasure grounds at the Chestnut Hill Reservoir as a part of the municipal park system he was creating for Boston. By 1891 (Figure 2.1), the broad curvilinear drive of Beacon Street along the southeast of the Reservoir with its maturing elms and adjacent walkways is evident, along with a manicured strolling path along the top of the embankment.

With the creation of the Metropolitan Park Commission in 1893, the Chestnut Hill Reservoir was identified as public open space "controlled by local authority."⁵ In 1895, the state legislature proposed a multi-municipality Metropolitan Water District, resulting in the 1895 Metropolitan Water Act, which created the Metropolitan Water Board. The new board proceeded to make improvements to the Chestnut Hill pumping structures, beginning in 1898 by expanding the High Service Pumping Station and constructing a new Low Service Pumping Station designed by Shepley, Rutan and Coolidge and completed by 1901 to increase water pressure to high rise buildings in the city. The new Water Board also began work on the Renaissance Revival Effluent Gatehouse (#2) designed by Wheelwright and Haven in 1898, located on the embankment across from the High Service Pumping Station. The Olmsted Brothers, successors of Frederick Law Olmsted, Sr., produced plans for a courtyard in front of the Low Service Pumping Station and the layout and grading plan for the proposed pipe yard site adjacent to the pumping station.

Although the buildings and structures associated with the Chestnut Hill Reservoir became part of the metropolitan system, much of the land remained in the ownership of the City of Boston and was only transferred to the Commonwealth during the second half of the twentieth century. In 1896, the City of Boston removed the Entrance Arch, which served as a grand gateway to the park at Chestnut Hill Avenue, to make way for a further extension to Commonwealth Avenue.

Throughout the early part of the twentieth century, the parkland at Chestnut Hill continued to be well-maintained with clearly defined paths and manicured lawns and landscaping. According to a description published in 1916, "All around the winding outlines of the basin runs a trim driveway and besides it a smooth gravel footpath. On all sides of the lake are symmetrical knolls, covered with flowered shrubs; and the stonework, which in one place carries the road across a natural chasm, and the great natural ledges, are mantled over with clinging vines, and in autumn are aflame with the crimson of ampelopsis and the Virginia creeper."⁶



Figure 2.2: A view of the waterworks buildings on Beacon Street, looking southeast, 1901 (Massachusetts State Archives).

The Metropolitan District Commission (MDC) was established by the Massachusetts legislature in 1919, expanding the responsibilities of the former Metropolitan Park Commission and consolidating three distinct regional agencies into one organization. The new MDC assumed responsibility for the Chestnut Hill Reservoir, buildings, and some of the parkland.

In 1928 and 1929, the MDC surrounded the Reservoir and the perimeter path with 8,180 linear feet of decorative steel picket and chain link fence in an effort to protect the water supply system from pollution and dumping. The granite columns and metal gates at both Gatehouses were also erected at that time. As a result, public access to the Reservoir and perimeter path was restricted.

The trustees of Boston College acquired the remains of the former Amos Lawrence farm in 1908 and moved to the new campus by 1913. By 1948, the Lawrence Basin was removed from active use as a reservoir, and in 1949,

the MDC conveyed the water body to Boston College, who eventually filled it in to create additional land area for the college. The area now serves as recreational playing fields and dormitories.

In 1959, the City of Boston transferred control of the eastern part of the Reservoir land to the MDC, specifically the area dominated by the hill along Chestnut Hill Avenue. This area also includes the land area now occupied by the Reilly Memorial Rink and Pool, constructed by the MDC in 1961.

In 1977, the MDC undertook a \$1.5 million program of landscape improvements including a new playground, entrance sign walls, new trees and shrubs, new pathways, a scenic overlook, and paving improvements, with granite cobble crosswalks on the remaining portion of the Chestnut Hill Driveway. This also included replacement of some of the steel picket fence enclosing the Reservoir, primarily in the areas north of the Reservoir. Most of these improvements occurred on the land outside of the fence protecting the Reservoir. In addition, landscape improvements were made around the High Service and Low Service Pumping Stations, located across Beacon Street from the Reservoir.

In 1985, the Massachusetts Water Resources Authority (MWRA) was formed and became the independent government agency responsible for all of Boston's water resources, which had previously been managed by the MDC. While the Commonwealth still retained ownership of Chestnut Hill Reservoir, the MWRA was responsible for the maintenance and management of the Reservoir and all land immediately adjacent within the perimeter fence. The MDC still retained maintenance authority for the surrounding open space outside the fence. In the 1980s, the Reservoir was formally taken out of active service and was to only serve as an emergency water supply and for fire protection purposes at the discretion of the MWRA. In 2002, the MWRA declared the High Service and Low Service Pumping Stations surplus, with proposals for future development coordinated by the Department of Capital Asset Management (DCAM). This eventually led to the mixed-use private development currently under construction, known as the Waterworks.

Portions of the current Reservation were nominated as a City of Boston Landmark in 1989 and the Reservoir and many of its associated structures were listed on the National Register of Historic Places as part of the larger

Water Supply of Metropolitan Boston thematic nomination in 1990.

Operation and maintenance responsibility for the area within the perimeter fence was passed from the MWRA back to the MDC through an interagency agreement in 2002.⁷ Prior to that agreement, the MDC maintained control of all of the land outside the perimeter fence and inside the boundary of the current Reservation, while the MWRA controlled all of the land inside of the perimeter fence and Shaft #7. The Reservation is now composed of several different parcels of land that were once controlled by the MWRA, the former MDC, and the City of Boston. According to the 2002 agreement, the MDC assumed management responsibility for the Reservoir, the perimeter fence and the surrounding Commonwealth land and agreed to develop, implement, and manage a public access plan and program for the Reservation.

In 2003, the Massachusetts Department of Conservation and Recreation (DCR) was created by combining the MDC with the Department of Environmental Management (DEM). Since then, the DCR has made significant strides in opening up the entire Reservation to the public. The fence that once enclosed and protected the Reservoir is now open and the scenic perimeter pathway again serves as a popular running and walking path. In addition, the DCR has started to make general improvements to the landscape. The overgrown vegetation on the shoreline has been cut back and other measures have been taken to thin out the overgrown vegetation in other parts of the Reservation.

Prehistoric Site Potential

Although there are currently no prehistoric archaeological sites recorded in the Massachusetts Historical Commission's files for Chestnut Hill Reservoir, there is good reason to believe that sites may have existed prior to the construction of the Reservoir, and that if they did exist they may have even survived the transformation of the former wetland into a water-holding reservoir. The presence of Native Americans in this portion of Greater Boston is conclusively demonstrated by the presence of a large prehistoric site (19-MD-179) which incorporates nearby Hammond Pond and Hammond Pond Reservation.

In the 1860s, the proponents for a new water source for Boston found what they thought was a perfect location: one hundred acres on the Brighton/Newton borders. Although historic maps are not consistent in depicting

whether or not there was standing water or a significant wetland present in this location, two maps do show a brook running across the site, and it was described as marsh and meadow.

Such a natural feature would have been attractive to Native Americans, because it would have been a valuable natural resource base for plants and animals. Furthermore, well-drained level ground around the wetland would also be attractive for human habitation. It is believed that the prehistoric sites within the present day Arnold Arboretum in nearby Jamaica Plain were probably the result of short term recurrent fall/winter occupation. It is probable that locations around the future reservoir site were also utilized during the fall/winter, as locations along the Charles River, its tributaries and its estuaries were the focus of subsistence activities during the spring/summer.

Historical Significance

This section summarizes the current historic status of Chestnut Hill Reservation, and proposes potential new areas of landscape significance that have emerged as a result of the research conducted for this RMP. This analysis, including potential new areas of landscape significance, illustrates how the historic character of the Reservation changed and developed during its long history. It helps identify features that can be considered historically significant, even though they may have been installed after the primary period of significance defined by the National Register nomination had ended, and provides a new context for those features as part of the evolution of the landscape from rural park in the 1860s to part of the metropolitan (MDC) park system from 1919. As such, the analysis below can inform decisions about the future management of the landscape at Chestnut Hill Reservoir.

1. Current Designations

Chestnut Hill Reservoir has been designated as a City of Boston Landmark⁸ and is listed as part of the overall “Water Supply System of Metropolitan Boston” thematic nomination on the National Register of Historic Places.⁹ The Boston Landmark report does not give a period of significance for the Reservoir. For the National Register, the thematic nomination ascribes a period of significance for the water supply system of the Commonwealth beginning in 1845 and ending in 1926.¹⁰ The individual Chestnut Hill Reservoir MHC inventory forms give a period of significance of 1868 to 1926, although 1900 is

also given as the last date for architectural activity at Chestnut Hill.¹¹

Chestnut Hill Reservoir was determined to meet all four criteria for Boston Landmark designation. The National Register nomination listed the Reservoir as significant at the state and local level in the areas of government, architecture, and engineering and meeting National Register Criteria A (event) and C (design).



Figure 2.3: Boston Landmark boundary.

The exact boundaries of the Boston Landmark, National Register nomination, and RMP project area vary slightly from each other. For example, the eastern portion of the Reservation (containing the hill, the old playground, the parking area in front of Gatehouse #1, and the area around the Reilly Rink and Pool), the Intermediate Gatehouse and the northern stretch of Saint Thomas More Road are part of the RMP area but are not included within the Boston Landmark boundary. Neither the RMP nor the Boston Landmark designation include the small plot of land in Newton that houses the Sudbury terminal chamber, although it does appear to be included in the Chestnut Hill Reservoir Historic District (the exact boundaries of the National Register nomination are, however, difficult to interpret). The RMP project area also includes the MWRA-managed area to the west of the Reservoir (known as Shaft #7) although only to note its legal status and restrictions regarding its access and development.¹² Figure 2.3 shows the location of the boundary of the Boston Landmark designation.

These designations are important for the management of the Reservation for a number of reasons. First and foremost, they officially recognize that the Reservation is

historically important, a conclusion that has been supported by the City of Boston, Massachusetts Historical Commission, and the National Park Service. By designating the Reservation as a historic property, the Commonwealth assumes stewardship responsibility for a cultural landscape with historic buildings and structures associated with Boston's water supply system.

2. Contributing Resources

The National Register and Boston Landmark nominations identify specific buildings, structures and landscape features associated with the history of the Chestnut Hill Reservoir. These features are called contributing resources because they represent cultural resources that are significant in scale or size, which contribute to the significance of the property. Smaller features, such as specimen trees, light fixtures, or fencing, are not typically identified by the National Register, but are, nevertheless, significant character-defining features of the landscape.

Contributing resources identified in the National Register nomination, which also fall within the boundary of this RMP, include:

- Reservoir/Chestnut Hill Driveway/ landscaping¹³
- Effluent Gatehouse (#1)
- Intermediate Gatehouse¹⁴
- Effluent Gatehouse (#2)

Neither the Boston Landmark report nor the National Register nominations gave detailed descriptions of the landscape around the Reservoir, or fully assessed its significance. The Boston Landmark report did include the Driveway and landscaping as a significant resource, and acknowledged its importance as the first "large-scale rural park-like setting" developed by the City of Boston.¹⁵ The focus of the National Register nomination was on the Reservoir's role in the water supply system and as a result, the nomination includes the Reservoir itself as a contributing resource, but does not mention the surrounding landscape, nor the Driveway or path, presumably because they played no direct role in water supply.

3. Potential New Areas of Landscape Significance

The research and analysis conducted for this Resource Management Plan, included as Appendix C, sheds some new light on the significance of the landscape at the Chestnut Hill Reservoir. The previous NR documentation considers the Reservation as an integral part of Boston's water supply system, with an associated period of significance of 1845-1926 for the entire system, and 1868-1926 for Chestnut Hill Reservoir in particular. A related but distinctly different historic context is the importance of the Reservoir and its associated landscape as a public park with scenic and recreational values, both as an early Boston park and later as part of the Metropolitan Park System. This, combined with a new evaluation of potential archaeological sensitivity by the DCR Archaeologist (based on recent experience from Spot Pond in the Fells), provides evidence of important new historic contexts for the Reservation.

Chestnut Hill is likely significant in its own right as the first large-scale rural public park in Boston. As early as 1869, before the Reservoir was completed, the Chestnut Hill landscape had "already become a favorite place of resort." The park thus pre-dates Boston's 1875 Park Act, which created a municipal commission to consider a park system for the city and which led to the work to create the Emerald Necklace beginning in 1878. Thus, the secondary period of significance associated with early rural park begins in 1865 when the Water Board began developing the land. In the following year, the idea of a pleasure drive or carriageway around the Reservoir won immediate, enthusiastic public support.

The landscape is also likely significant for its association with Frederick Law Olmsted Sr., who in 1887 conceived the 'Chestnut Hill Loop' to join the Reservoir to the pleasure grounds he was designing elsewhere in the city. The Chestnut Hill Driveway remained one of the most popular pleasure drives in the city in the late nineteenth and early twentieth centuries, inspiring other cities, such as Cambridge, to create pastoral landscapes and pleasure drives around their municipal reservoirs. During this secondary period of significance, the Water Board carried out two major plantings of elm trees around the Reservoir (in 1876 and 1887), resurfaced at least some of the Driveway to make it suitable for automobile use (1916), and continued to meticulously maintain the landscape. The development of the area around the Reservation and the arrival of street cars on Beacon Street (1889) and

Commonwealth Avenue (1909) no doubt added to the number of people able to enjoy the Reservation's attractions.

A secondary period of significance for the Chestnut Hill landscape as an early public park, pre-dating the Boston park system likely ends in 1919 when the Metropolitan District Commission was created by an act of the legislature and the new organization assumed responsibility for Chestnut Hill Reservoir and its landscape.



Figure 2.4: Photograph from the early 1930s showing the new fence around the Lawrence Basin (University Archives, John J. Burns Library, Boston College).

Another related historic context for the Chestnut Hill Reservation is its importance as part of the Metropolitan Park System. This context begins in 1919 when the MDC assumed responsibility for the Reservoir. This secondary period includes the erection of the decorative iron picket and chain link fence around both basins and its accompanying gates (1928-29), to protect the quality of the water supply. It also includes the creation of the new outer path around the water to allow continued public access to the site. This secondary period of significance comes to an end as the creation of the Quabbin Reservoir results in the Lawrence Basin being declared inactive in 1948. This smaller reservoir was sold to Boston College; the basin was filled in, the Influent Gatehouse razed, and the Driveway and its surrounding landscape became the site of the College's Lower Campus. Defining the end of the secondary period of significance for the Chestnut Hill landscape as c.1948 also reflects the National Park Service guidance that properties achieving significance within the past 50 years are not generally considered historic or eligible for inclusion on the National Register

of Historic Places unless they demonstrate transcendent importance.¹⁶ However, the MDC, and later the DCR, have continued to manage the Reservoir landscape as a public park up to the present day.

4. Integrity

Integrity is the ability of a property to convey its historic identity, or the extent to which a property evokes its appearance during a particular historic period, usually the period of significance. While the evaluation of integrity is often a subjective judgment, particularly for a landscape, it must be grounded in an understanding of a property's physical features and how they relate to significance through an evaluation of seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association). Retention of these qualities is essential for a property to convey its significance, though all of the seven qualities need not be present to communicate a sense of past time and place.

For the historic context related to the metropolitan water supply system (1865-1926), Chestnut Hill Reservation possesses integrity of location, setting, materials and workmanship, with diminished design, feeling and association. For the additional historic contexts associated with the Reservation as a public park (1865-1919 and 1919-1948), it possesses integrity of location, setting, workmanship and association, with diminished design and some reduction in feeling, especially from the period as an early public park.

The Reservoir and water supply buildings that lie within the current Reservation have already been assessed as meeting National Register Criterion A in illustrating or representing important events in the development of the public water supply system for the Boston metropolitan area; and as meeting National Register Criterion C as possessing aesthetic or design values characteristic of or notable in public works engineering and architecture of their time. In addition, the landscape may meet National Register Criterion C as an early example of a nineteenth century public park developed by the City for the residents of Boston. Resources associated with the property such as the Bradlee Basin, its embankment and original path, the parkland and Driveway, and Effluent Gatehouses #1 and #2 contribute to the landscape's significance. Areas of significance likely include architecture, landscape architecture, industry, engineering, recreation, politics/government and social history.

5. Non-Historic Additions

A number of features have been added within the boundaries of the current RMP study area since the end of the primary period of significance (1926) and the end of the proposed secondary period of significance (1948). They include the parking spaces located north and south of the Chestnut Hill Driveway, the single and double head light fittings on the Driveway, the picnic tables and grilles north of the Driveway, the Chestnut Hill Reservoir Community Gardens and the scenic overlook. In addition, the Reilly Memorial Pool and Rink and their associated walkway and service driveway, the parking lot adjacent to Effluent Gatehouse #1, the children's playground and some box-style pedestrian lights have been added on land to the east of the Reservation, which lies outside the boundary of the Boston Historic Landmark designation and appears to be outside the Chestnut Hill Reservoir Historic District. Some of this land to the east was not acquired from the City by the Commonwealth until 1959, and so was technically outside the boundary of the Reservation during its secondary period of significance as part of the Metropolitan Park System. The original iron fence, installed 1928-29 was introduced after the primary period of significance. Sections of the iron fence around the Reservoir were replaced in 1977, when the MDC added additional fencing at the playground and community gardens.

Identifying non-historic additions to the landscape should not automatically lead to their removal. Change is inherent in cultural landscapes such as the Chestnut Hill Reservoir; it results from both natural processes and from human activities. This dynamic quality inherent in landscapes is balanced by the continuity of distinctive characteristics.¹⁷ In terms of managing the site, it may be desirable to identify and remove or adjust any later additions that are judged to be substantially detracting from its essential historic character or to meet specific interpretive or recreational access objectives.

¹ William P. Marchione, "A History of the Chestnut Hill Reservoir, Part 1: Building the Reservoir, 1866-70."

² Boston Landmarks Commission, *Report on the Potential Designation of the Chestnut Hill Reservoir and Pumping Stations as a Landmark* (City of Boston, 1989), 35.

³ Nathaniel J. Bradlee, *History of the Introduction of Pure Water into the City of Boston* (Boston: Alfred Mudge & Sons, 1868), 223.

⁴ William P. Marchione, interview with Jill Sinclair by email, October 4, 2005. He located the arch from an examination of Plate 17 of the 1890 Bromley Street Atlas.

⁵ Charles W. Eliot, *Charles Eliot, Landscape Architect* (Boston: Houghton Mifflin, 1902).

⁶ *A Guide Book to Boston*, as cited in the Boston Landmarks Commission report.

⁷ Agreement Between the Metropolitan District Commission and the Massachusetts Water Resources Authority Regarding Chestnut Hill Reservoir and Surrounding Lands Held By or On Behalf of the Commonwealth, May 2002.

⁸ Boston Landmarks Commission.

⁹ As set out in the 1989 "National Register of Historic Places Water Supply System for Metropolitan Boston" thematic nomination. This is based on (and refers the reader to) the 1984 individual MHC inventory forms for each property. Sometimes the information varies between the two sources: where this seems significant, both versions are given here.

¹⁰ The beginning date corresponds with the date of the first Water Act, with the end date signifying that the nomination only covers water supply systems created before the Quabbin Reservoir, authorized by the 1926 Ware River Supply Act and 1927 Swift River Act.

¹¹ The 1868 date given for the start of the period of significance of the Chestnut Hill Reservoir in the MHC inventory forms is defined by the initiation of building construction. In fact, acquisition and development of the land began in 1865. The end of architectural work was actually 1901, which is described in further detail in the Annotated Chronology, Appendix C.

¹² DCR, "Request for Response."

¹³ The Boston Landmarks Commission list uses the title 'Chestnut Hill Driveway and Landscaping;' the National Register simply says 'Chestnut Hill Reservoir.' See Appendix C for more information on what this term includes.

¹⁴ Not within the scope of the Boston Landmarks report.

¹⁵ Boston Landmarks Commission, 38.

¹⁶ National Register *Bulletin* 15.

¹⁷ National Park Service, *The Secretary of the Interiors Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* <http://www.cr.nps.gov/hps/hli/introguid.htm>

